

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re DIVISIONAL application of)
HONGYONG ZHANG et al.)
Based on Serial No. 09/222,185) Group Art Unit: 2826
Filed: December 29, 1998) Ex.: M. Wilczewski
For: SEMICONDUCTOR DEVICE AND)
METHOD FOR ITS PREPARATION)

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450


Sir:

In accordance with the provisions of 37 C.F.R. 1.56 and 37 C.F.R. 1.97-1.99, Applicant submits herewith a Form PTO-1449 listing references known to Applicant and requests that these references be made of record in the above identified application.

Copies of U.S. patents and U.S. publications are not enclosed in accordance with the Notice published in the Official Gazette on August 5, 2003 entitled *Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003*, which waives the requirement under 37 CFR 1.98(a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. publication.

The remaining references listed on the attached Form PTO-1449 were cited in parent application Serial No. 09/222,185, and predecessor Application Serial Nos. 08/911,912 and 08/263,351 and copies of the references can be found in those applications.

Respectfully submitted,



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Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	
				Based on 09/222,185	
				Filing Date	
				December 29, 1998	
				First Named Inventor	
		Hongyong ZHANG, et al.			
Group Art Unit		2822			
Examiner Name		Mary Wilczewski			
Sheet	1	of	4	Attorney Docket Number	0756-7272

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		5,278,093		Yonehara	01/11/94	
		5,147,826		Liu et al.	09/15/92	
		5,275,851		Fonash et al.	01/04/94	

FOREIGN PATENT DOCUMENTS								
Examiner Initials [*]	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	JP		58-068923			04/25/83		Abst.
	JP		59-028327			02/15/84		Abst
	JP		60-136304			07/19/85		Abst
	JP		61-063017			04/01/86		Abst
	JP		01-132116			05/24/89		Abst
	JP		02-032527			02/02/90		Abst
	JP		02-143415			06/01/90		Abst
	JP		04-180219			06/26/92		Abst
	JP		05-082442			04/02/93		Abst

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		English Translation of Japanese Patent Office Communication about Claim Rejection of Corresponding Japanese Patent Application		
		Caune et al., "Combined CW Laser and Furnace Annealing of Amorphous Si and Ge in Contact With Some Metals," Applied Surface Science, Vol. 36, 1989, pp. 597-604.		
		C. Hayzelden et al., "In Situ Transmission Electron Microscopy Studies of Silicide-Mediated Crystallization of Amorphous Silicon," (3 pages)		
		A. V. Dvurechenskii et al., "Transport Phenomena in Amorphous Silicon Doped by Ion Implantation of 3d Metals," <u>Akademik Lavrentev Prospekt</u> 13, 630090 Novosibirsk 90, USSR, pp. 635-640.		
		T. Hempel et al., "Needle-Like Crystallization of Ni Doped Amorphous Silicon Thin Films," Solid State Communications, Vol. 85, No. 11, pp. 921-924, 1993.		

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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

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				Filing Date		December 29, 1998	
				First Named Inventor		Hongyong ZHANG, et al.	
				Group Art Unit		2822	
				Examiner Name		Mary Wilczewski	
Sheet	2	of	4	Attorney Docket Number		0756-7272	

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		5,153,702		Aoyama et al.	10/06/92	
		5,463,254		Iyer et al.	10/31/95	
		5,600,169		Burgener et al.	02/04/97	
		5,882,960		Zhang et al.	03/16/99	
		5,895,933		Zhang et al.	04/20/99	

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
		JP	02-140915			05/30/90		Full
		JP	02-148831			06/07/90		Abst.
		JP	03-290924			12/20/91		Abst.
		JP	04-022120			01/27/92		Abst.
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		JP	64-027222			01/30/89		Abst.
		EP	0 612 102			08/24/94		Engl.
		WO	92-01089			01/23/92		Engl.

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
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		Kakkad et al., "Crystallized Si-Films By Low-Temperature Rapid Thermal Annealing of Amorphous Silicon," March 1, 1989, pp. 2069-2072, J. Appl. Phys. 65(5).		
		Kakkad et al., "Low Temperature Selective Crystallization of Amorphous Silicon," 1989, pp. 66-68, Journal of Non-Crystalline Solids, 115.		
		Liu et al., "Polycrystalline Silicon Thin Film Transistors on Corning 7059 Glass Substrates Using Short Time, Low-Temperature Processing," May 17, 1993, pp. 2554-2556, Appl. Phys. Lett. 62(20).		
		Liu et al., "Selective Area Crystallization of Amorphous Silicon Films by Low-Temperature Rapid Thermal Annealing," August 14, 1989, pp. 660-662, Appl. Phys. Lett 55(7).		

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		Number	Kind Code ² (if known)			
		4,136,434		Thibault et al.	01/30/79	
		4,305,200		Fu et al.	12/15/81	
		4,604,150		Lin	08/05/86	
		4,942,441		Konishi et al.	07/17/90	
		5,100,815		Tsubone et al.	03/31/92	
		5,212,397		See et al.	05/18/93	
		5,313,075		Zhang et al.	05/17/94	
		5,372,958		Miyasaka et al.	12/13/94	
		5,485,019		Yamazaki et al.	01/16/96	

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
		JP	63-030776			02/09/88		Abst.
		JP	05-067635			03/19/93		Full
		JP	01-132115			05/24/89		Abst.

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		Hayzelden et al., "Silicide Formation and Silicide-Mediated Crystallization of Nickel-Implanted Amorphous Silicon Thin Films," J. Appl. Phys., Vol. 73, No. 12, 15 June 1993.	
		Schoenfeld et al., "Crystallization of Amorphous Silicon by NiSi ₂ Precipitates," Thin Solid Films 261, 1995, pp. 236-240.	
		Batstone et al., "In Situ TEM Studies of the Crystallization of Amorphous Silicon: The Role of Silicides," Microscopy of Semiconducting Materials 1993, pp. 165-172.	
		Bonnel et al., "Polycrystalline Silicon Thin-Film Transistors with Two-Step Annealing Process," IEEE Electron Device Letters, Vol. 14, No. 12, December 1993, pp. 551-553.	
		Wolf et al., "Silicon Processing For the VLSI ERA," Volume 1: Process Technology, pp. 216-218.	

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		4,693,759		Noguchi et al.	09/15/87	
		4,822,752		Sugahara et al.	04/18/89	
		5,612,251		Lee	03/18/97	
		5,582,640		Okada et al.	12/10/96	
		5,773,325		Teramoto	06/30/98	
		5,587,330		Yamazaki	12/24/96	
		5,620,910		Teramoto	04/15/97	
		4,597,160		Ipri	07/01/86	
		5,322,807		Chen et al.	06/21/94	
		4,918,028		Shirai	04/17/90	
		6,376,860		Mitanaga et al.	04/23/02	
		5,639,698		Yamazaki et al.	06/17/97	

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		EP	1 026 751			08/09/00	Eng.
		EP	1 026 752			08/09/00	Eng
		EP	0 631 325			12/28/94	Eng
		EP	0 631 325			05/07/03	Eng

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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		European Search Report dated October 2, 2002.	
		Communication Pursuant to Article 96(2) EPC, European Patent Office, June 30, 2003.	

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